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II.—ANALOGY IN THE SEMITIC LANGUAGES.

PART II.

The following are the principal instances of analogical formation in the Semitic languages.

CLASS I.

Analogical formations in the inflection of the verb, or in the formation of verbal derivatives with reference to the different classes of verb-stems.

In this class are comprised only such cases as have reference to the different classes of verb-stems. All other cases are placed under their proper heads (Classes II and III).

Division A.

Confusion of the different classes of stems, either in the inflection of the verb or in the formation of verbal derivatives.

In Hebrew the two classes of verbs ל'ה and ל'א are frequently confounded. Sometimes, however, this confusion is due simply to the Massoretic pointing.

ל'ה after the analogy of ל'א.

שָׁנָה 2 Kings 25. 29 'he changed' for שִׁנָּה. So also from the same stem יִשְׁנָה Lam. 4. 1 and יִשְׁנָה Ecc. 8. 1.

יִפְרִיא 'he is fruitful' Hos. 13. 15.

בָּלָא 'to consume' Dan. 9. 24 for בָּלָה (inf. constr. Piel).

מְרַפָּה Jer. 38. 4 'relaxing' for מְרַפֵּה (prtcp. Piel).

מְרָה for מֵרָה Zeph. 3. 1 'rebellious' (prtcp. Qal) st. מרה.

מְסַלֵּא Lam. 4. 2 'weighed' as if from סָלָא.

תָּלֵא Deut. 28. 66 'hanging' pass. prtcl. Qal as if from תָּלָה. So also תָּלְאוּם 2 Sam. 21. 12 קרי.

וַיַּחֲלָה 2 Chron. 16. 12 'and he was sick' for וַיַּחֲלֶה.

וַיַּחֲפְּאוּ 2 Kings 17. 9 'and they covered' as if from a stem חָפַה, for חָפָה.

וַיֵּדָה 2 Kings 17. 21 'and he removed' as if from נָדָה, for נָדָה from נִידָה.

אֶל-תִּבָּא Prov. 1. 10 'be not willing' as if from a stem אָבַח for אָבַה.

לִירוֹא 2 Chron. 26. 15 'to shoot' as if from a stem יָרָא for יָרָה, similarly 2 Sam. 11. 24 and Prov. 11. 25.

ל"א verbs after the analogy of ל"ה verbs.

Several forms from בָּלָא 'to withhold,' 'to restrain,' are formed as if from a stem בָּלָה, so בָּלַתִּי Ps. 119. 101 (this, however, may be simply due to the Massorites), בָּלַתִּי 1 Sam. 25. 33, בָּלִי 1 Sam. 6. 10, יִבְלֶה Gen. 23. 6.

So also many forms from רָפָא 'to heal' are formed as if from רָפָה, as רָפָה Ps. 60. 4. Imperative Qal with vowels as if from רָפֵא.

תִּרְפִּינָה Job 5. 18 'they heal.'

נִרְפִּי Jer. 51. 9. יִרְפוּ 2 Kgs. 2. 22. Perfect and imperfect Niphal. יִרְפוּ Jer. 8. 11. Piel.

So also בּוֹטָה Prov. 12. 18 'babblers' from stem בָּטָא (cf. מִבְּטָא).

צָמָא Ruth 2. 9 from צָמָא 'to thirst.'

מָלֵא Ezek. 28. 16 and יִמְלֶה Job 8. 21 from מָלָא 'to be full' as if the stem were מָלָה.

Compare also such infinitive forms as יִרְאוֹת Jud. 8. 1 from קָרָא 'to call.'

מָלֵא Numb. 6. 5 from מָלָא 'to be full,' also מְלֵאוֹת Jer. 25. 12, מְלֵאוֹת Ex. 31. 5.

שָׂנֵא Prov. 8. 13 from שָׂנֵא 'to hate.'

חָטָא Ez. 33. 12 from חָטָא 'to sin,' קִנְאָה 2 Sam. 21. 2 from קִנָּא 'to be jealous.'

These forms as compared with מְצַא, etc., clearly show the influence of the analogy of גָּלַח.

The example of חָטָא, moreover, leads us to suspect that in חוֹטָא Is. 65. 20, חָטָא Ecc. 8. 12, and in other similar cases we have something more than a "confusion due to the Massorites."¹

נִבְלִינִי Ps. 139. 14 and נִבְלִינִי Ex. 33. 16 are from בָּלָא to separate, distinguish,' as if the stem were בָּלָה.

נְטִמִּינִי Job 18. 3 from טָמָא 'to be unclean' as if the stem were טָמָה.

So מְצִיחָה 2 Sam. 3. 8 from מָצָא 'to find' as if the stem were מָצָה.

¹ It is well known that the verbs ל"א are in the Mishna regularly inflected as verbs ל"ה; see Geiger, *Lehrb. zur Sprache der Mishna*, p. 46; Strack-Siegfried, *Lehrb. der neuhebr. Sprache* (1884), §§98c and 105; cf. Wright, *Koheleth* (1883), p. 488.

נָחַבָּה Jer. 49. 10 from נָחַב 'to hide' as if the stem were חָבַה, also הִחָבְהָ 1 Kgs. 22. 25. So also נִגְבִּיתָ Jer. 26. 9 and הִנְבֵּאתוּ Zech. 13. 4 from נָבֵא 'vaticinatus est' as if the stem were נָבַה (for נָבו).

Similarly הִתְנַבֵּיתָ 1 Sam. 10. 13 and הִתְנַבֵּיתָ 1 Sam. 10. 6.

Again, a similar confusion is observed between ע"ע stems and ע"ו stems.

The following forms from ע"ע stems are formed as if from a stem ע"ו :

יִרְוֶן Prov. 29. 6 'he will sing' (st. רָנַן).

יִרְוֶן Is. 42. 4 'he shall be bruised' (stem רָצַץ). [Cf. Eccl. 12. 6.]

יִשְׁוֹר Ps. 91. 6 'he shall waste' (st. שָׁדַר).

בֹּרַר Ecc. 9. 1 'to explore' (st. בָּרַר).

נִנְוִי Nah. 1. 12 'they shall be cut down' (st. נָזַו).

תִּבְזֹו Is. 24. 3 'she shall be plundered' (st. בָּזַו).

תִּבְזֹק Is. 24. 3 'she shall be emptied' (st. בָּקַק).

יִמְשִׁשׁוּ Ps. 115. 7 'they handle' (st. מָשַׁשׁ).

מִסִּיד Jud. 3. 24 'covering' (st. סָכַךְ).

תִּעֹרַר Hab. 3. 9 'she was made bare' (st. עָרַר).

יִהִיֶּן Hab. 2. 17 'it terrifies them' (st. חָתַח).

יִרְעַע Prov. 11. 15 'he shall be broken' (st. רָעַע).

So also in Syriac these two classes of verb-stems, viz. ע"ע and ע"ו are frequently confused. See Nöldeke's Syriac Grammar, §§ 58, 105, 126 B, 174 E, 175, 176, 177 A for these and similar instances in Syriac.

The following forms from ע"ו stems are formed as if their stem were ע"ע.

נִשְׁבַּ Josh. 2. 16, inf. of שָׁבַע 'to return'; יִמָּר Jer. 48. 11, Pause, 'he is changed,' st. מָוַר; and יִמָּר Ezek. 48. 14, Hiph. from the same stem.

In Syriac all the verbs ע"ע form their forms with prefixes after the analogy of verbs ע"ו. See Nöldeke, Syriac Grammar, § 178 C.

This is also the explanation of all those forms with prefixes from verbs ע"ע in Hebrew, in which the first stem-consonant is doubled. They are based on the analogy of verbs ע"ו.

Instances are יָדָם from דָּמָם 'to be silent.'

יִקְרַד stem קָרַד 'to bow the knee.'

יִתָּם stem תָּמַם 'to finish.'

יִדָּל stem דָּלַל 'to be slack, feeble.'

יִשָּׁח stem שָׁחָה 'to be low.'

יִמָּד stem מָכַד 'to tumble, fall.'

סבב stem סבב 'to turn' and יסב, Hiphil from the same stem.

The same formation is observed in the case of some forms from ע"ו stems.

סננ stem סננ 'to draw back, depart.'

סיל stem סיל 'to cut off.'

סיל Hiphil stem סיל 'to shake.'

סית Hiphil stem סית 'to move.'

סל Hoph. stem סל 'to be long.'

סננ and סננ 'to lay down,' 'to cause to rest' Hiph. stem סננ.

According to Stade, §535b, the form סננ, impft. 3d person fem. plur. stem סבב 'to turn,' with the insertion of the diphthong *ai* (י) between the stem and the ending, rests on the analogy of the same form from stems ס"ה (for ס"ה or ס"ה) סננ.

In Mandaean (Nöldeke, Mandaean Grammar, page 83) and in Amharic (Praetorius, Amharische Sprache, p. 141) confusion between stems ע"ע and ס"י and ס"י is especially frequent. The examples are all given in the places cited, so that it is needless to give them here.

According to Praetorius (loc. cit.), this is also the explanation of the form סבנ, i. e. the stem סבב is treated as if it were סבה for סבו (sabawa). On סבנ see also Wright, Arab. Gramm. §120 rem. c. and Spitta, Dialect of Cairo, §101, 3.

Sometimes stems פ"י and פ"י are confused. As is well known, many of the stems פ"י in Hebrew are originally פ"י, the original initial *waw* reappearing in the Niphal, Hiphil, and in verbal derivatives with *waw*-preformative. Not all such formations with *waw* are organic, however. Thus, as is pointed out by Haupt (S. F. G. p. 22, note 1) the verb ידע 'to know' is a verb *cum yôdh originario*, as appears from the Assyrian *idî, tidî*, and Ethiopic *'äydê'a notum fecit*. Hence the Hiphil הודיע, Syriac *'awdâ* and *shawda'* are analogical formations.

Some forms from stems ע"ע show the influence of פ"י analogy to which they bear an external resemblance.

סננ Job 18. 7, impft. stem צרר 'to be narrow.'

The verb הלך 'to go' has the impft. Qal. הלך and Hiph. הולך as if the stem were הלך, while the form הולך Mic. 1. 8 points to a form *cum y originario*.

So also the form יטב, impft. from טוב 'to be good,' as if the stem were יטב.

In Assyrian the stems פ"י and פ"י and פ"ה (פ"ה) are also confused. Thus *ušēbila, ušēšib, ušēši* from stems פ"י are formed as if from stems פ"ה.

So also *attašab*, *ittašūni*, *muttabil* are formed after the analogy of *attalak*, etc., and this again shows the influence of stems פ"ב. *izzazū*, present of *nazāzu* 'to stand,' is based in its vocalization on the analogy of 'illakū from 'alāku 'to go.' See Haupt, S. F. G., p. 52, note 10.

So also *iddan* stem *nadānu* 'to give,' by the same analogy. *illika* 'he came' is פ"ן analogy. See Haupt, S. F. G., p. 66, also *Hebraica*, Vol. I, p. 255.

So also the stems ורר and ורר form their preterites as if from ירר and ירר, *ē-qir*, *li-ri-qu* (Del. Ass. Gram. §112).

Dr. Rosenberg, *Das Aramäische Verbum im Babylonischen Talmud*, gives the following instances of transfer from one weak class to another in that idiom.

P. 40. מיתצר 'er ward gebildet' Joma 85a, Sota 45b analogy of ע"ו.

P. 44. Most verbs ע"ו form their Afel after the analogy of verbs פ"ו.

P. 45. Verbs ע"ע with object-suffixes are sometimes treated after the analogy of ל"ו.

P. 46. Ethpeel of verbs ע"ע, formed, partially at least, after the analogy of verbs ע"ו. So עלל forms its *Pael* and *Ethpaal* after the analogy of verbs ע"ו.

P. 63. Verbs ל"י form with pronominal suffixes after the analogy of the strong verb (cf. Nöld. Mand. Gram. §204).

In modern Syriac פ"הא, fem. פ"התא 'lukewarm,' whose stem is really פ"ה, is based on the analogy of קירא 'cold,' חימא 'warm' (Nöld. Neusyrische Sprache, §43).

Further, שמעיא 'heard' and מרעיא 'sick' are formed after the analogy of other ל"י forms, such as רביא 'pure,' חויה 'seen,' etc. (Nöld. Neus. S. §44, p. 91).

Cases of analogical formation in the confusion of different classes of weak verbs are specially frequent in modern Syriac. See Nöld. Modern Syriac Grammar, p. 188, §95.

Verbs פ"י and ע"ו are confused. See Nöld. op. cit., p. 228, §108, p. 230.

Verbs פ"א, such as אספ 'to ascend,' אסר 'to catch, to be cold,' are treated after the analogy of verbs פ"י.

Many verbs originally ע"ע are treated after the analogy of verbs ע"ו, e. g. כפא, כפא 'to bend, stoop' from כפפ, תאם, תאם, etc. 'to finish' from תאם (Nöld. Neusy. Sprache, p. 231, §109).

טאב 'to be worth' has some forms from טבא (ל"י).

קאן 'to spit' has in the inf. באַרקא after the analogy of פֿאַ (Nöld. §110, p. 233).

לִי and לִי are confused (p. 239, §111). See also p. 248, §114.

The verb יחב (p. 254, §117) forms its conjugation from several different though correlated stems.

There are many instances of such confusion of the different classes of weak verbs in Mandaean. The instances are too numerous to be mentioned here in detail. See Nöld. Mandaean Grammar, p. 24, §22.

Verbs *tertia* ו after the analogy of verbs *tertia* י.

P. 82, §74. Verbs ו"ו after the analogy of ו"ו and conversely ו"ו after the analogy of ו"ו.

Verbs *mediae* נ and ו after the analogy of ו.

Verbs לִי after the analogy of ו"ו, and so conversely verbs ו"ו after the analogy of verbs לִי.

Nominal formations from different stems showing the influence of לִי stems are given on p. 104, §90.

P. 111, §94. (Mand.) forms from לִי, לִי treated after the analogy of forms from stems ו"ו.

P. 236, §177a. Verbs *tertia* *gutturalis* after the analogy of stems לִי.

P. 243, §180. Verbs פֿאַ are treated after the analogy of verbs פֿאַ, פֿאַ.

Verbs ו"ו and ו"ו are habitually confounded (Mand. Gram. p. 247, §183).

So p. 255, §189. Verbs *mediae* ו or נ are treated after the analogy of verbs ו"ו.

Cases of the influence of one class of weak stems upon another in Amharic are given in Praetorius, Amharische Sprache (Halle, 1879), p. 141, §103. As they are all fully cited there and discussed at some length, it is needless to mention them here in detail.

Other cases of the confusion of different weak stems in Arabic are given by Barth, Nominalbildung, p. 45, §30b.

The adjective-form *qāṭil* from stems ו"ו, preserves the *w* in a few cases such as *ṭawīl* 'long,' *ḥawīḍ* 'zealous.' But in most cases they follow the analogy of stems ו"ו, with the usual change of *ājē* to *ājji* (*aiji*). Examples are *maiḥit* 'dead,' *aiḥid*, *jaḥid* 'good,' *haiḥim* 'light, easy.'

Other instances are given p. 188, §127c, *qaiim*, *haiḥit*, *saḥid*.

CLASS I.

Division B.

Stems with weak stem-consonants after the analogy of stems with strong stem-consonants. Also original bi-consonantal stems after the analogy of tri-consonantal stems.

As was pointed out in the first part of this article, many stems in the Semitic languages which seem to have three stem-consonants were probably bi-consonantal in their original condition, and assumed an additional stem-consonant in order to make them tri-consonantal by the force of the prevailing analogy. Other stems, instead of becoming completely tri-consonantal remained more or less imperfect and preserved some traces of the original bi-consonantal condition. In different languages also they attained to different stages of completeness. Thus, from the original bi-consonantal stem קם we have in Hebrew קים and קם (with a long vowel), and in Arabic *qāma*. The Hebrew intensive is קים, and the Arabic *qauyama*, and Aramaic קים (קים Dan. 6. 8). Here it will be seen that the original bi-consonantal stem is more conspicuous in Hebrew, and the form of the tri-consonantal stem is more completely attained in Arabic and in Aramaic, *qauyama* standing on exactly the same plane as *qattala*.

Finally, taking the inflection as it now stands, where the peculiarity or feebleness of one or more of the stem-consonants, or the originally bi-consonantal nature of the stem gives rise to different classes of verbs, each with its own special paradigm (according to the current denomination פ"ע, פ"ע, פ"ע, etc.), we find many individual cases which, disregarding these peculiarities, leave the paradigm to which they ought normally to conform and follow the analogy of the strong or perfect verb throughout.

We find, then, that we can distinguish three closely related cases:

(1). Stems in which all traces of the original bi-consonantal nature have disappeared, and which have three stem-consonants in all of their forms.

(2). Stems in which the analogy of the tri-consonantal stems is established as part of the regular paradigm in some of the forms.

Here we find such cases as the Arabic *qauyama* from *qāma*, Aramaic קים from קם.

Compare also Nöldeke, Modern Syriac Gramm. §42, where it

is observed that those nouns which in the earlier language were bi-consonantal, such as *dim* 'blood' and *shim* 'name,' have become tri-consonantal in modern Syriac, *dimmā* and *shimmā*.

Under this head may also be placed the forms treated by Barth, *Vergleichende Studien*, Z. D. M. G., Vol. 41, p. 603 fg.

Because of the reluctance of the Semitic languages to have nouns with only two stem-consonants, masculine nouns of this class of forms of which he is treating (viz. shortened derivatives of stems ל"ו and ל"ל) are but seldom found in the northern Semitic languages, and in Arabic hardly ever. In consequence of the prevalence of the law requiring *three* stem-consonants, the greater number of such shortened nouns assumed the feminine ending, not to denote sex, but simply to compensate the loss sustained by the disappearance of the third stem-consonant. Cf. Hebrew שָׁקַת 'drink' from the stem שָׁקַה, גִּיָּה 'body.' In Arabic *hiḏe* from the stem *hazīḏa* 'to obtain' and many others.

So also the "feminine ending" is added in those cases where the *first* stem-consonant has disappeared. לָדַת and Arabic *lidatu* from the stem וָלַד (*walada*), יָלַד 'to bear.' This "feminine ending" has become so entirely a part of the stem as to remain in the plural. Compare דְּלָתוֹת 'doors,' קִשְׁתוֹת 'bows,' שְׂקָתוֹת 'watering-troughs,' דְּפָתוֹת Ez. 13. 18 'bands, pillows.'

(3). Individual cases of single forms where the normal paradigm or type of the class to which the stem belongs is disregarded and the form is based directly on the analogy of the strong or regular verb.

In אֶי־בִתִּי Ex. 23. 22 'I was an enemy' and in עָיִף 'weary,' we evidently have a later development of a consonantal *yodh* between the two original consonants of the stem.¹

With regard to עָיִף, however, we must note that Barth, *Nominalbildung*, §10b, regards it as transposed for יָעִיף.

The assimilation of a vowelless *y* is a familiar fact in Hebrew morphology. In cases where it is retained, the analogy of other consonants not subject to such assimilation doubtless has its influence. So תִּנְגְּשִׁי Is. 58. 3 'ye exact,' יִטְוֹר Jer. 3. 5 'He will keep,' יִגְזְרוּ Deut. 33. 9 'They will guard,' יִקָּב Job 40. 24 from קָב 'to bore through,' יִקָּפִי Is. 29. 1 from קָפַח 'to come round,' said of feasts.

¹ Cf. Haupt, *Zeitschrift für Assyriologie* II 276, and *Beiträge zur Assyriologie* I 296 below.

לְהִתֵּךְ Ezek. 22. 20 'to melt,' Hiph. inf. of הִתֵּךְ.

הִנָּחַק Jud. 20. 31 Hophal from נָחַק 'to cut off.'

In Assyrian *n* is not assimilated to the following dentals: *ēnzu* 'goat,' *bintu* 'daughter,' *enšu* 'weak.' See Haupt in *Hebraica* I 227.

In עָוֵר Ps. 119. 61 'to surround' Piel of עָוַר; עָוֵר 'to make blind,' נִימְנִי Ps. 119. 28 'preserve me alive!' Piel of נִימַן; קָנוּבְּךָ Dan. 1. 10 'so ye should endanger,' Piel of the stem קָנַב; חָנַבְנוּ Josh. 9. 12 'we provided ourselves with food,' Hithpael denominative from צִיר 'food,' from the stem צָוַר 'to hunt,' we have instances of forms of stems with weak stem-consonants treated after the analogy of stems with strong consonants.

In a few cases we find, instead of the usual form of the construct infinitive from ל' stems (נִלְוֹת), a form which is based on the analogy of the same form from the strong stem קָטַל; such forms are עָשָׂה 'to do,' רָאָה 'to see,' קָנָה 'to get,' שָׁתָה 'to drink.'

Such forms as שְׁוֹרִים 'boves,' חֲנִיכִים 'thickets,' חֲזָקִים 'forces,' חֲזָקִים 'bucks,' עִירִים 'cities,' when compared with the more organic form of such stems as seen in שֻׁזְמִים 'whips,' קִוצִים 'thorns,' אֵילִים 'terebinth-trees,' show the influence of the analogy of the form דְּבָרִים.

In the different forms of the *verba mediae geminatae* (or ע'ע verbs) there are many forms which seem to point to an original bi-consonantal stem, e. g. סָב, while others are formed as if there were three original firm and equally legitimate stem-consonants, סָבַב. The former are the more organic, more in accordance with Hebrew phonetic law; the latter are analogical.

Thus by the side of such forms as דָּק 'he has beaten small,' חָם 'he is warm,' and מָר 'it is bitter,' we have other forms with the second stem-consonant repeated. גָּנַב 'he has plundered,' חָם 'he is warm,' מָדַד 'he has measured,' סָבַב 'he has surrounded.'

After the same analogy we have substantives such as רֶטֶט 'terror,' the plural עַמְּמִים 'nations' by the side of the more organic form עַמִּים.

So also in the construct infinitive we have such forms as גָּזַח 'to cut,' לָסַבְּ Numb. 21. 4 'to compass,' עָזַח 'to make strong,' צָרַח 'to bind up,' מָסַח Is. 10. 18 'to melt away,' שָׁדַח 'to spoil' Jer. 47. 4, שָׁלַח 'to spoil,' by the side of the more organic forms שָׁבַח.

So also the imperfect יִדָּוַר (stem נָדַד) 'to flee from' and יִהְיֶה from the stem הָנָה 'to be gracious,' by the side of the more organic יִהְיֶה.

¹ Cf. Nöldeke, *Mand. Gramm.* §132; *Syr. Gramm.* §§21D and 93.

In Hebrew all forms with the (so-called) *Dagesh forte implicitum*, especially in the Piel, Pual, and Hithpael of verbs whose second stem-consonant is a guttural are analogical. The phonetic law is that the guttural cannot be doubled. Then the short vowel preceding the guttural must be lengthened because it stands in an open unaccented syllable. Cases where this is not done, e. g. **גָּשַׁר** 'he has consumed,' **נָאֵץ** 'he has despised,' **נָאָר** 'he has rejected' are based on the analogy of **קָטַל**.

The “virtual doubling” of the gutturals is a fiction of the grammarians.

CLASS I.

Division C.

Forms of the strong stem after the analogy of forms from weak stems.

One of the most remarkable cases where the form of the strong verb has been influenced by the weak verb in Hebrew is the long accented *i*-vowel in the final syllable of the Hiphil or causative. So Bickell, §47: "The remarkable transition of *i*, which has arisen from *a* to *i* in the *Hiphil*, has perhaps originated according to an erroneous analogy from the conjugation of the verbs *mediae v. y.*, where this *i* is phonetically legitimate." Compare also Stade, Hebrew Grammar, §91. König's criticism (*Lehrgebäude*, §27. 4), that the basis is too narrow, and that it is too bold to explain a form of the regular verb by a single form of the irregular verb, is hardly borne out when we consider the prevalence and power of analogy. See Delbrück, *Einleitung in das Sprachstudium*, p. 108, where the case is cited that four Old Slavonic verbs, *jesmĭ, vĕmĭ, damĭ, jamĭ*, have effected that in New Slovenian and New Servian all the verbs of all classes of conjugation end in *m* in the first person singular number.

In some forms of the intensive from tri-consonantal stems, where it is formed by the repetition of the third stem-consonant, we may have the influence of the analogy of originally bi-consonantal stems where such forms are organic. Such are שָׁנְנוּ Job 3. 18 'they are at ease,' שָׁנְנוּ 'they languish.'

Under this head may be placed also those plural forms of modern Syriac in which the stem of the singular is enlarged by the repetition of the final stem-consonant (Nöld. Neus. Sprache, p. 143, §72). These are probably, as Nöldeke remarks, based on

such plural forms as *'amamîn*, Hebrew עֲמִימִים. The instances of this kind are given by Nöldeke loc. cit. Among them are מִלְלָה (*milâlê*) 'words,' בִּרְכָא (*birâkê*) 'knees,' טִלְפָּפֶה (*tilpâpê*) 'eyelashes.'

Under this head may also be placed those cases where a phonetic process, starting under certain fixed conditions, was afterwards applied to stems where these conditions did not exist. In such cases the strong or regular verb leaves its normal paradigm or type and follows the analogy, not exactly of a weak stem, but of a stem whose stem-consonants, although strong and firm, still have some peculiarity which causes a change in the inflection.

The Semitic verb forms its reflexive by a prefixed *it* or *ta*. In Ethiopic it is *ta*. In Hebrew the form of the reflexive prefix is הִתְ. In stems beginning with a sibilant the ה of this reflexive prefix is transposed so as to come after the sibilant instead of before it. Thus, from שָׁמַר 'to keep,' 'to watch,' the imperfect reflexive is יִשְׁמַר 'he will observe (for himself).' This mode of forming the reflexive from stems beginning with a sibilant by means of an infixed instead of prefixed *t* is found in nearly all the Semitic languages. In Arabic and Assyrian, however, this mode of forming the reflexive by means of infixed *t* (*ta* or *tau*) is not confined to stems beginning with a sibilant, but the reflexive particle is universally infixed.¹ In this case the strong probability is that it was not so in the primitive form of the language, but that it started, as in Hebrew, with the stems beginning with a sibilant, and then the influence of these formations gradually spread until it included all stems.

Only two other explanations are possible; either the primitive Semitic form was indifferently prefixed or infixed *t*, or else it was universally infixed, and became prefixed in Hebrew, Aramaic, etc., except in the case of stems beginning with a sibilant. Praetorius, in his article "Äthiopische Grammatik und Etymologie," in the first number of the Beiträge zur Assyriologie, edited by Delitzsch and Haupt (p. 25 and note), says that it is not unlikely that the reflexive *t* was originally infixed in Ethiopic. The proof of this which he cites, however, in the case of *kadâna* 'textit' seems very weak.

¹ In Assyrian the *t* is infixed not only in the reflexive derived from the Pal (*iptâllix*), but also in the reflexive derived from the intensive stem (*uptallix*). In the latter formation the *t* is prefixed in Arabic (V and VI), not infixed as in the eighth form.

Delitzsch, on the other hand (Assyrian Grammar, §83), remarks that the reflexive prefix was originally prefixed and not infix, and that traces of this prefixing are still found in Assyrian. This, too, favors the position that the change from prefix to infix first took place in the case of stems beginning with a sibilant, to avoid cacophony, and was then, by the force of analogy, extended to all stems.

A similar case of the extension of a phonetic change beyond its organic limits by the process of analogy is found in Amharic, in the linguistic phenomenon known as 'palatalization'¹ (German, Mouillirung), in which the pronunciation of a consonant is affected by a certain liquid modification occasioned sometimes by a following *i*, *j*, or *ê*, and sometimes also taking place without the influence of these sounds. In the cases where the palatalization is occasioned by the sounds mentioned, certain modifications in vocalization are phonetically legitimate. In some cases, however, these changes in vocalization take place where they are not organic, but analogical. There is no *i*, *j*, or *ê*-sound to occasion them, yet the language acts as though there were, simply because the phenomenon of palatalization is usually accompanied by these sounds.

In the pronominal suffix of the 3d person plural, masculine or feminine, *âtjâw*, for instance, the liquid modification of the *t* is not occasioned by a following *i*, *j*, or *ê* sound. Yet the language acts as though there must be a latent *ê*-sound, and in some cases places it there; so in the form *bilâtjêw* 'when he told them.'

So also it often happens that a stem which originally ended in *w* or *j* lost its final stem-consonant in the modern Amharic by a process of phonetic decay. The theme thus shortened is simply inflected as though it never had another stem-consonant, or else a trace of the vanished final *j* is left in the palatalization of the preceding stem-consonant. In some cases, however, where this palatalization has taken place without the influence of a final *j* the language proceeds on the presumption that there must have existed such a final stem-consonant. Thus the verb *mânâtjâ* never existed in the form *manataja*, yet it forms its imperfect, not *imantj*, as it should do, but *imantj*, as though there were a final stem-consonant *j*. See this whole matter fully treated and illustrated in Praetorius, Amharische Sprache, p. 45, §23b, and pp. 237-240, §200.

¹ Cf. Beitr. z. Assyr. I 257, n. 9.

CLASS II.

Analogical formations involving changes and confusion in vocalization.

In Semitic we distinguish in the nominal formations between substantives of *internal formation* (Stade: Nomina innerer Bildung; Barth: Schlichte Nomina) and substantives of external formation (N. äusserer Bildung). Substantives of external formation are formed either by *prefixes* or by *suffixes*.

Substantives formed directly from the stem without consonantal additions are divided into different classes according to differences in their vocalization.

According to Barth, Nominalbildung, these different nominal formations in Semitic exhibit many instances of the analogical influence of one form or class of forms upon another in the matter of vocalization.

The following is a brief and summary statement of the fundamental positions of his book:

The nominal formations of Semitic are formed either from the perfect or from the imperfect verb-stems.

There are three classes of perfect verb-stems, distinguished by three characteristic vowels, *ā*, *i*, *ū*. Forms with *a* are transitive. Forms with *i* and *u* are intransitive. Each of these classes of perfect-stems gives rise to a corresponding class of nominal formations likewise distinguished by the three characteristic vowels, *a* for the transitive, and *i* and *u* for the intransitive.

There are also three classes of imperfect stems, distinguished likewise by the three characteristic vowels *u* and *i* for the transitive, *a* for the intransitive. Each of these three classes, again, gives rise to a corresponding class of nominal formations.

In many of these nominal formations we observe that the characteristic vowel of the class to which it belongs has been correctly maintained. These call for no further attention. In other cases, however, we find that a change has taken place. That is to say, the verbal stem, either perfect or imperfect, as it now exists, has a different vowel from that of the corresponding nominal formation. In cases such as these there are two possible explanations. Either, in the original form of the language the verbal stem existed in two forms with two different characteristic vowels, one of which subsequently ceased to be used, surviving, however, in the corresponding nominal formation; or else the anomalous characteristic vowel of nominal formation is the result of analogy.

I have noted the following cases as cited by Barth :

§17β. Intransitive nominal forms of the form *qūtūll*, legitimate when formed from *u*-perfects, but sometimes also found derived from *i*-perfect stems. Thus 'umudd (perf. *i*) 'full of youthful strength.'

Sometimes intransitive adjectives of this form are formed from transitive stems. Thus *ṣumull* 'hard, firm,' *kubunn* 'avaricious.'

P. 36, §24. Intransitive nominal forms of the form *qūtl* derived from *i*-perfects.

In Arabic :

zuhd from *zahida* 'to be white, glossy.'

husr 'loss' from *hasira* 'to lose.'

'*ujb* from '*ajiba* 'to be astonished.'

ruhb from *rahiba* 'to fear.'

ruḡb 'avidity, voracity' from *raḡiba* 'to wish, desire.'

In Hebrew :

אֱמֻנָה 'faithfulness,' from אָמַן (?) 'to be faithful.'

חָפֵץ 'want' from חָפַץ 'to want.'

In Syriac :

ܪܝܢܐ 'anger' from ܪܝܢ 'to be angry.'

ܥܫܢܐ from ܥܫܢ 'to be strong, heavy.'

ܫܡܢܐ from ܫܡܢ.

ܢܗܠܐ 'laughter' from ܢܗܠ 'to laugh.'

ܫܠܡܐ from ܫܠܡ 'to be whole.'

ܪܗܩܐ 'length' from ܪܗܝܩ.

Barth, p. 43, §28c. Instances of the form *qātīl* intransitive from *u*-perfect stems.

sari 'rapid' from *saru'a* 'to hasten.'

jalid 'hard' from *jaluda* 'to be hard, firm.'

karim 'noble' from *karuma*.

kabir 'old' from *kabura*.

kabira, fut. *a*, 'to be advanced in age,' is, however, also given in the dictionaries.

katir 'many' from *katura*.

'*aẓim* 'great, large, immense, huge' from '*aẓuma*.

In the Targums :

גַּיב 'dry,' שְׁדִיךְ 'quiet,' דְּמִיךְ 'sleeping,' חֲשִׁיךְ 'dark,' from stems having *u* in the perfect.

The same phenomenon is observed in nominal derivatives from imperfect stems (see page 96, §64 d,e). Thus the Hebrew infinitive קָטַל is formed not only from *u*-imperfect stems, where it is

organic, but also from intransitive verbs with *a*-imperfect, e. g. שָׁן 'to sleep,' אָהב 'to love,' חָל 'to cease,' שָׂנא 'to hate,' יָרא 'to fear.' These are clearly the result of analogy. In other cases, however, we must consider the possibility that in a previous period of the language the two forms with two different characteristic vowels existed side by side, the one having survived in the present form of the verb-stem, the other in the corresponding nominal formation.

Thus in Hebrew imperfect *a* is the regular imperfect of stems having a guttural as second or third stem-consonant, while the corresponding nominal forms often point to an original *u* or *i* form. Such are פָּגַע 'to strike,' זָעַף 'to be angry,' שָׁלַח 'to send.' So also transitive *qittl* forms in Arabic from verbs *mediae gutturalis* which now have only imperfect *a*, *fīl* 'act,' *sihn* 'charm,' *rihle* 'passage, journey.' Here it is more probable that the uniform *a*-imperfects are themselves the result of a later modification under the influence of analogy.

So also in the case of transitive nominal forms of the form *qātl* or *qittl* derived from the imperfect stems.

The imperfect *i* itself has been mostly crowded out by the prevailing analogy of the *u*-imperfects, while the original vowel has often been preserved in the corresponding nominal formation, especially the infinitive. (See Barth in ZDMG 43, 177-91.)

The following instances are given. Infinitives with suffixes: מָכַר 'to sell' (מָכַר), שָׁבַר, נָפַל.

Infinitives without suffixes: לָעֵשֶׂר Deut. 26. 12 'to tithe'; also the noun מֵעֵשֶׂר 'tenth'; לָעֵזֶר 'to help' 2 Sam. 18. 3 (Kēthibh), לָחַלַק 'to receive a portion.'

Sometimes even when the *i*-imperfect was preserved, and not crowded out by the prevailing analogy of the *u*-imperfect, its nature was misunderstood and this misunderstanding led to further analogical formations.

In many cases the language mistakenly assumed them to be Hiphil-imperfects, with which they completely coincided in form, and then by analogy produced other Hiphil forms to correspond with them.

So especially in the case of stems ע"ו.

From הָבִין, יָרִיב, יָבִין, etc., were formed the Hiphil-forms הִבִּין, הִיָּיר, etc.

The same thing took place in case of the other stems. According to Barth (op. cit. p. 119, §78a): Whenever a transi-

tive form *qittl* of any stem points to an original *i*-imperfect, and when this stem occurs in some languages in the *Qal*-form, but in others only in the *Hiphil*, the presumption is that this *Hiphil* is of secondary formation, based on a misconception of the original *i*-imperfect. Thus the common Semitic form זָכַר, Arabic *ḏikr*, Ass. *zikru* points to an original *i*-imperfect stem *jazkir*; compare Aramaic זָכַר with *ā* on account of ר.

As, however, this *i*-imperfect has disappeared from the *Qal* in Hebrew, it is probable that it was retained as a *Hiphil*, and then the other *Hiphil* forms were formed as a later analogical development.

Arab. *ḥaḍana* 'to take in the arms' has at present only the *u*-imperfect. From this we have Hebrew הִצֵּן 'arm, bosom,' and Arab. *ḥuḍne* 'embrace.' But the Hebrew הִצֵּן and Arab. *ḥiḍn* point to an original *i*-imperfect.

From הִפְךָ 'reverse, contrary,' and הִפְתָּה 'overthrow,' we infer the former existence of a form הִפֵּךְ as *Qal*-imperfect. This is not found now in north-Semitic. But Syriac has *Aphēl* in the same sense as Hebrew and Syriac *Qal*. Compare also Hebrew הִפֵּךְ Job 30. 15, which presupposes the *Hiphil*. In the same manner the noun *siqī* (watering) and the imperfect *iasqī* explain the formation of the later *Hiphil*, הִשְׁקָה and Aram. שִׁשְׁקִי, resulting in crowding out the *Qal* which must have existed at a former period; cf. שָׁקָה, Syriac שִׁשְׁקִתָּ etc.

So also the Hebrew נָסִיךְ 'libation,' form *qatīl*, Deut. 32. 28, points to an original *i*-imperfect. Hence נָסִיךְ Ps. 16. 4, וְנָסִיךְ Gen. 35. 14 are regarded by Barth as originally *i*-imperfects *Qal*. Being erroneously regarded as *Hiphil*-imperfects they furnished the basis for further analogical *Hiphil*-formations. Another case is וְנָסִיךְ. Being regarded as a *Hiphil*-imperfect it furnished the basis for further analogical *Hiphil*-formations, but וְנָסִיךְ and וְנָסִיךְ point to an original *i*-imperfect of the *Qal*.

P. 116, §77a, 3. In Arabic the transitive form *qittle* is formed organically from *i*-imperfect verb-stems to express the mode or manner of the action expressed by the verb. After this meaning had become established for this form it was extended by the force of analogy to verbs of every class.

P. 126, §82. Transitive nominal formations *qūtūl*, *qātūl* formed from the imperfect.

Where such formations exist from stems which at present do not have *u* as the characteristic vowel of the imperfect we must

again, as elsewhere, distinguish two cases; either at an earlier period the *u*-imperfect existed side by side with an *i*- or *a*-imperfect, and was gradually displaced, or else the *u*-nominal formations are the result of analogy. Instances of the former case are seen where the Arabic has only *i*-imperfect while Hebrew and Syriac have *u*-imperfect; so Arabic *hulûk*; הָלַךְ and *ḡufûr*. But many such cases are probably the effect of analogy.

The following are instances of infinitives of this class where there existed no corresponding *u*-imperfect:

uutûb from *uataba* 'to leap.'

uurûd from *urarada* 'to arrive.'

ujûd from *ujada* 'to find.'

ujûb from *ujaba* 'to be necessary.'

u'ûl from *u'ala* 'to seek refuge in.'

ujûz from *ujaza* 'to be brief.'

P. 135, §85d. The infinitive *qätîl* is used to form collectives. Organically it belongs, of course, to *i*-imperfects, but it is often found where there is no corresponding *i*-imperfect, especially to denote collectives of the names of animals. So *kalib* 'dogs,' *qä'in* 'sheep,' *ma'iz* 'goats,' *naqid* 'cattle.'

e. In Ethiopic the infinitive *qätîl* has become the regular verbal infinitive for every class of verbs, and as such is formed from all the different conjugations. This analogical extension of the infinitive form *qätîl* has completely crowded out the old parallel form *qätîl*.

f. So also in later Hebrew (Mishna) the feminine קטילה, used to denote abstract notions is formed without regard to the character of the stem. The instances given are, חסימה, פריקה, נפילה, ביאה, הליכה, שביתה, אמירה, יציאה.

P. 144, §92. Transitive *qattlat*. In the case of the words גָּנָבָה and טָרְפָה we are unable to determine whether we have the evidence of a former *i*-imperfect of these stems, or analogical formations induced by the signification of the same form from other stems.

P. 174, §122c. Speaking of the active participial form *qätûl* (or *qätûl*) he says that a genetical connection with the infinitive *qütûl* is beyond question, and both go back in their origin to the *u*-imperfect. But just as it was shown (in paragraph 82B of this same work) that the infinitive *qütûl* was often formed analogically when there appears no *u*-imperfect, so also the participial form *qätûl* is used to form an active participle from a number of stems which show only the *i*-imperfect; so *qarûb* (by the side of *qarib*)

'striking,' *hatûf* 'buzzing, sounding, clanging,' *ġašûm* 'violent' (but *ġašama* is given with *u*-imperfect), *kasûb* 'gaining, acquiring.'

P. 175, §122a, note 1. Instances of active participles of the form *qātûl* formed from stems having *i*-perfects, through the influence of analogy.

In Arabic: *ḍahûk* 'laughing,' *amûl* 'doing,' *ia'ûs* 'despairing.'

In Hebrew: שָׂנֵא נֶפֶשׁ 2 Sam. 5. 8 and אֶהְיֶה רָע Hosea 3. 1, are cited as instances of this form.

From the Mishna, העסוקין 'busying themselves,' Para 4. 4, זית הנטופה 'dripping olive,' Pēā 7. 1 הוי שָׁקוּר 'be watchful,' Ab. 2. 14 שְׂרִי 'dwelling,' etc.

P. 178, §123a. The form *qātûl* as passive participle is formed in Hebrew from all stems indiscriminately.

P. 186, §126a. The participial form *qātîl* organically connected with *i*-imperfects is formed in Arabic from verbal stems of every kind.

d. In Aramaic this form has become the regular passive participle, and as such is formed from every transitive verb.

P. 201, §136b. Participle *qātîl*. This form arises from the transitive *i*-imperfect. The form from the *i*-imperfect, rather than that formed from the *u*-imperfect, became the prevailing one through the influence of the forms of the participle in the derived conjugations, which show an *i*-vowel after the second stem-consonant.

The only difference between the participle of the Qal and that of the derived conjugations lies in the fact that the latter prefix an *m*, while the former, not taking the prefix, lengthen the vowel of the first syllable.

After this form was established as the participle of the transitive *i*-imperfect, it was extended to all transitive imperfect stems, and also to those stems which are intransitive in structure, but transitive in meaning. In a few cases it is extended to verb-stems intransitive in meaning.

Arabic, *âmin* 'sure,' *sâlim* 'safe,' *bâ'id* 'far.'

Eth. *râtê* 'true.'

Aram. דָּחַל 'fearing,' דָּחַא 'rejoicing.'

Heb. וָלָלָה 'base, abject.'

I have stated these principles and given these illustrations just as they are given by Barth. I must say, however, that to my mind his whole position and the value of all his discussions are

extremely doubtful. For, first, as he himself admits in many places, we do not know how far these forms, which apparently show a different vowel from that of the form from which he derives them under the influence of analogy, may go back to other forms which no longer exist, but which, when existing, had the same vowel as the nominal formation derived from them.

The whole of §100, for instance, on the imperfect infinitives of the derived conjugation is made extremely uncertain by the admission which he rightly makes, that formerly these imperfects may have shown an *u* as well as an *i*-vowel. This but shows how uncertain the whole matter is, far too uncertain, in fact, to form the basis of scientific investigations and conclusions.

But again, I do not see that he establishes with any degree of certainty the fundamental position of his whole book, viz. that all the nominal formations must be referred either to the perfect or imperfect verb-stems, whose characteristic vowel will normally be the characteristic vowel of the corresponding nominal formation, and that all deviations therefrom are the result of analogy. Why should all nominal formations necessarily come through the channels of the perfect and imperfect verb-stems? Why can they not be referred directly to the simple ground-stem, without the intervention of the perfect or imperfect verb-stems? These are questions not satisfactorily answered by Barth, while they are suggested by the many deviations from the principle which he seeks to establish.

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